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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,428	07/02/2003	Andreas Girgensohn	FXPL-01065US0	6562

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EXAMINER	
ZHAO, DAQUAN	
ART UNIT	**PAPER NUMBER**
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/612,428	GIRGENSOHN ET AL.	
	Examiner	Art Unit	
	Daquan Zhao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No: _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/26/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 20 is rejected under 35 U.S.C. 101 because the claims fail to provide a tangible result, and there must be a practical application, by either

1) transforming (physical thing) or

2) by having the FINAL RESULT (not the steps) achieve or produce

- a useful (specific, substantial, AND credible),
- concrete (substantially repeatable/non-unpredictable), AND
- tangible (real world/non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter must be amended. If the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended. A claim that recites a computer that solely calculates a mathematical formula is not statutory.

In the present case, claim 20 is directed to a computer program product per se. Such, in and of itself, is not believed to be directed to a practical application which produces a useful, concrete and tangible result. While the practical application does not necessarily need to be recited in the claims, the claims in this instance appear to be directed to a process too preliminary to convey any practical application to one of ordinary skill in the pertinent art.

The courts have also held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See Le Roy v. Tatham, 55 U.S. (14 How.) 156, 175 (1852) ("A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right."); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 132, 76 USPQ 280, 282 (1948).

Accordingly, one may not patent every "substantial practical application" of an idea, law of nature or natural phenomena because such a patent "in practical effect would be a patent on the [idea, law of nature or natural phenomena] itself." "Here the "process" claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure-binary conversion. The end use may (1) vary from the operation of a train to verification of drivers' licenses to researching the law books for precedents and (2) be performed through any existing machinery or future-devised machinery or without any apparatus." Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 16, 17, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al (US 7,035,435 B2).

For claim 1, Li et al teach A method for automatically generating a multi-level video summary (e.g. column 2, lines 26-35, column 3, lines 26-41, also figure 2 shows the video sequence is summarize in the levels of scenes, shots and frames), comprising:

- automatically dividing a video file into video segments using segmenting criteria (e.g. column 4, lines 5-20, and line 60-67, length, activity level, number of component shots contain in the scene and camera motion are consider to be segmenting criteria for scenes and shots);
- automatically generating at least one summary level including video segments from the video file, the video segments in each summary level selected using selection criteria (e.g. figure 1a shows the scene level and shot level of the video sequence); and
- automatically generating navigational links between video segments in the summary levels, the navigational links connecting video segments containing related material (e.g. scenes and shots are considered to be segments in the scene and shot level, respectively, wherein the the links between scenes and shots in figure 1a are considered to be navigational links, for example, the link between scene 1 and shot 1).

Claim 19 and 20 are rejected for the same reasons as discussed in claim 1 above.

For claim 2, Li et al teach automatically determining the length of each summary level (e.g. column 4, lines 5-20, and line 60-67, scene length and shot length are determined in terms of the number of frames).

For claim 3, Li et al teach automatically grouping video segments in a summary level into a video composite, the video composite including at least two video segments in the summary level (e.g. column 3, lines 26-41, a scene 22 is composed of a set of semantically related shots 24. a scene is considered to be the video composite).

For claim 4, Li et al teach providing a user interface whereby a user can view the multi-level video summary, the user interface allowing the user to navigate between summary levels using the navigational links (e.g. column 3, lines 41-65, also see column 10, line 54- column 11, line 15, and figure 15, User interface 106, user navigates along the hierarchical, scene-shot-frame video tree).

For claim 5, Li et al teach automatically generating at least two summary levels further includes generating summary levels each having a different level of detail for related video segments (e.g. column 3, lines 41-65, the scene and shot levels have different detail).

For claim 6, Li et al teach automatically determining the number of summary levels to generate (e.g. column 2, lines 26-35, the system determined scenes, shots and frames as shown in figure 1a, wherein the number of summary levels are fixed to be 3).

For claim 7, Li et al teach automatically determining which navigational links to generate (e.g. figure 1a shows the links of scene-shot-frame, column 10, line 54-column 11, line 3).

For claim 8, Li et al teach providing at least one algorithm to be used in generating a multi-level video summary (e.g. column 4, lines 28-58, algorithm for computing scene importance).

For claim 10, Li et al teach providing the ability for an author to refine an automatically-generated multi-level video summary (e.g. column 11, lines 18-26, creat more key frames when user requests more detail look at the video content).

For claim 17, Li et al teach each summary level includes a different number of video segments (e.g. figure 1a, the number of shorts are more than the number of scenes when going down the tree because each scene links to m number of shots).

For claim 16, Li et al teach the video segments in each summary level are in chronological order as the video segments appear in the video file (e.g. figure 1a, the video sequence 20 is summarized by hierarchical, scene-shot-frame structure shown in figure 1a, wherein, scenes are number in a chronological order as 1, 2, 3...N, and the shorts are number in a chronological order as 1,2,3...M).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 13, 14, 15, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 7,035,435 B2) as applied to claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 16, 17, 19 and 20 above, and further in view of Bhagavath et al (US 6,829,781 B1).

See the teaching of Li et al above.

For claims 13 and 15, Li et al fail to specify each navigational link includes a source anchor in one summary level, a destination anchor in another summary level, and at least one return behavior. Bhagavath et al teach each navigational link includes a source anchor in one summary level, a destination anchor in another summary level, and at least one return behavior (e.g. column 4, lines 26-35, figure 5, summary segment 505 is considered to be the source anchor, and program segment 515 is considered to be the destination anchor in a different level, return to the next summary segment 506 automatically when the program segment 515 is completed). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Bhagavath et al into the teaching of Bhagavath et al to increase the speed of video browsing since Bhagavath et al suggest delimiting the beginning and ending of segments in both programming and summary channels (Bhagavath et al, column 2, lines 36-55).

For claim 14, Bhagavath et al teach each navigational link further includes a label (e.g. column 3, lines 10-20, summary-segment linkage marks).

For claim 18, Bhagavath et al teach the return behavior includes a return position selected from the group consisting of the beginning of a video segment, the point in a video segment at which a navigational link is followed, and the end of a video segment

(e.g. column 4, lines 26-37, returning to the beginning of the next summary segment 506 after the operation of the previous segment 505 is done).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 7,035,435 B2) as applied to claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 16, 17, 19 and 20 above.

See the teaching of Li et al above.

For claim 9, Li et al teach the selection criteria includes criteria selected from the group consisting of goodness (e.g. figure 2, zooming in and zooming out), smoothness of camera operation (e.g. figure 2, Right panning, left panning, up tilting and down tilting), amount of camera motion (e.g. column 4, lines 60-67, the activity level of the shot). However, Li et al fail to teach location in the video, and lighting level. The examiner takes official notice of the location in the video and the lighting level since they are well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the location in the video and the lighting level as the criteria selection into the teaching of Li et al when summarizing the video to easily identify a frame that represents the characteristic of the segment the most.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 7,035,435 B2) as applied to claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 16, 17, 19 and 20 above.

See the teaching of Li et al above.

For claim 11, Li et al fail to specify including the first and last video segment from the video file in the summary levels. The examiner takes official notice of including the first and last video segment from the video file in the summary levels since it is well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the first and last video segment from the video file in the summary levels into the teaching of Li et al to present the interesting part of the video to the user and increase the probability of user attempting to keep watching the video.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 7,035,435 B2) as applied to claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 16, 17, 19 and 20 above.

See the teaching of Li et al above.

For claim 12, Li et al fail to specify ensuring that the selection of video segments includes video segments distributed throughout the video file. The examiner takes official notice for ensuring that the selection of video segments includes video segments distributed throughout the video file since it is well known in the art. It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate ensuring that the selection of video segments includes video segments distributed throughout the video file into the teaching of Li et al to present many interesting part of the video to the user and increase the probability of user attempting to keep watching the video.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Seol et al (US 6,792,163 B2); Lee et al (US 7,127,735 B1); Wu et al (US 7,047,494 B2); Kim et al (US 7, 181,757 B1); Ratakonda (US 5,995,095).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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